

1. Set up your apparatus like the demonstration one show on the front counter.
2. Be sure that you tape down the paper and that your ruler edge is on the edge of the paper.
3. Make sure that your plastic cup is set up at the very end of the ruler.
4. Place one marble at the top of the ruler ramp and let it go.
5. Using one marker, trace around the cup onto the white paper wherever it lands.
6. Do this 4 more times (a total of 5 trials). Remember to reset your cup at the end of the ruler before each trial.
7. Now put three washers into the cup and redo the experiment 5 times. This time use another color marker to trace around where the cup lands.
8. Make a key at the top of your landing sheet for which color was just the cup and which color was the cup plus washers.

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| --- | --- | --- | --- | --- | --- |
| Number of Washers | Distance  Trial 1 (cm) | Distance  Trial 2 (cm) | Distance  Trial 3 (cm) | Distance  Trial 4 (cm) | Distance  Trial 5 (cm) |
| 0 |  |  |  |  |  |
| 3 |  |  |  |  |  |

Question 1: How did the increased mass (washers in the cup) affect the cup’s willingness to stay at rest?

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Question 2: Explain how this show’s the effect of mass on the law of inertia.